

SOUTHWESTERN COLLEGE

COURSE OUTLINE

Division: **School of Technology
& Human Services**

Origination Date: 11/90

Modification Date: 9/98, 3/99

Effective Date: **Fall 1999**

Course Designator

and Number	Title	Units	Lec	Lab
EHMT 200	Hazardous Material Management Applications Environmental Materials Management Applications	4	3	3

Same as (other course(s) designator(s),

Grading Basis: Grading Scale; Credit/No Credit option available

Prerequisite:

Co-requisite:

Recommended Preparation: EHMT 100, 130; Chem 100

Course Description & Scope: (50 words or less)

Overview of hazardous materials regulations, **including** emphasis on the transportation of hazardous materials, OSHA Hazard Communication, ~~SARA Title III~~ Community Right-to-Know, Underground Tanks, Asbestos, Proposition 65, Air Toxics, and Medical & Infectious Waste Regulations. The laboratory will focus on ~~applications such as proper labeling,~~ shipping and handling of hazardous materials; ~~obtaining and interpreting MSDS's; permitting and monitoring functions;~~ and planning and reporting functions. [CSU]

Measurable Course Objectives and Minimum Standards, as Determined by Standards set by the instructor, at 70% Proficiency for a Grade of "C":

1. Student will, through a written exam, identify the statutes and regulations which relate to air, water, soil, employee, and public health and safety.
2. Student will, through a problem solving exercise, read and explain the scope and application of these laws, and their liabilities and penalties they contain.
3. Student will, through a written exam, determine who has regulatory jurisdiction (federal, state, or local agencies) in hypothetical situations.
4. Student will, through a written exam, explain how to make proper contacts with regulatory authority and with information support services.
5. Student will, through a written exam, distinguish between regulations and organizational policies.
6. Student will, through a written exam, determine compliance methods and strategies in hypothetical situations.
7. Student will, through a written exam and laboratory exercise, explain how to update files and maintain records of material safety data, manifests, and permits.
8. Student will, through a written exam, explain how to obtain permits.
9. Student will, through a written exam and laboratory exercise, identify and classify hazardous materials/waste as per regulations, in hypothetical situations.

10. Student will, through a written exam and laboratory exercise, inventory and audit hazardous materials and wastes, in hypothetical situations.
11. Student will, through a written exam and laboratory exercise, identify problems and explain solutions in hypothetical situations.
12. Student will, through a written exam and/or laboratory exercise, explain proper procedures for transportation, storage, handling, tracking, and disposal of hazardous materials/wastes.
11. Student will, through a written exam and laboratory exercise, identify equipment and instruments for sampling and monitoring hazardous materials/wastes.
12. Student will, through a written exam and laboratory exercise, explain the proper care (calibration, maintenance and storage) and use of equipment.
13. Student will, through a written exam and laboratory exercise, explain how to ensure quality assurance/control of samples, including maintaining sample integrity during sampling, providing appropriate labeling, maintaining chain-of-custody, and recording field documentation.
14. Student will, through a written exam and laboratory exercise, explain the use of plot plans for sampling.
15. Student will, through a written exam and laboratory exercise, explain proper sample collection methodology.
16. Student will, through a laboratory exercise, perform simple tests and sample preparations.

Core Content to be Covered in all Sections:

1. Approximately 14 % of course
 - OSHA Hazard Communication Standard
 - Introduction and history
 - Requirements of federal and state communication standards
 - Federal OSHA hazard communication standards, 29 CFR 1910.120 and 1910.121
 - Cal/OSHA hazard communication standard, section 5194, General Industry Safety Orders
 - Hazardous Substance Information and Training Act, Section 6360 et seq.
 - California Labor Code (1980 Chapter 874)
 - Conducting chemical inventories of hazardous substances
 - Determining if a substance or mixture is hazardous
 - Access to employee's exposure and medical records
 - Interpreting MSDSs
 - Proper labeling of hazardous materials
 - Personal protective equipment communication requirements
 - Manufacturers' and suppliers' duties and trade secret protection
 - Regulatory inspection and enforcement considerations
 - Compliance strategies
 - Sources of assistance and information

2. Approximately 14 % of course
 - Community Right-to-Know
 - A. Introduction and history
 - B. Requirements of federal and state Community Right-to-Know standards
 - Federal SARA Title III
 - California Health and Safety Code
 - C. Hazardous materials release response plans and inventory requirements
 - D. Hazardous materials business plan exemptions
 - E. Reporting requirements and methods
 - F. Business plan development
 - Information gathering
 - Preparation of hazardous materials inventory
 - Preparation of site maps and facility layouts
 - Development and documentation of emergency response plans and procedures
 - Development and documentation of employee training

- G. Trade secret production
 - H. Penalties and informant rewards
 - I. Management of Extremely Hazardous Materials (RMPP=s)
 - J. Regulatory inspection and enforcement considerations
 - K. Compliance strategies
 - L. Sources of assistance and information
3. Approximately 14 % of course
Proposition 65
- A. Requirements of law
 - B. Notification
 - C. Designated employee reporting
 - D. Function of the Science Advisory Panel
 - E. Regulatory considerations
 - F. Compliance strategies
 - G. Sources of assistance and information
4. Approximately 14 % of course
Underground Tanks
- A. Introduction and history
 - B. Requirements and primacy of statutes and regulations
 - Federal, state, local
 - C. Existing tank standards
 - D. Accident and spill information and reporting systems
 - E. Identification and classification of hazardous materials for transportation
 - F. Determination of proper shipping names
 - G. Containers for hazardous materials
 - Transportation
 - Radioactive materials
 - Bulk containers
 - Non-bulk containers
 - H. Labeling
 - I. Packaging and placarding
 - J. Carrier requirements
 - K. Manifesting
 - L. Regulatory compliance and enforcement considerations
 - M. Compliance strategies
 - N. Sources of assistance and information
5. Approximately 14 % of course
Asbestos
- A. Introduction and history
 - B. Regulatory
 - C. Uses of asbestos
 - D. Legal issues/insurance
 - E. Notification and documentation requirements
 - F. Inspection/assessment/sampling
 - G. Regulatory inspection and enforcement considerations
 - H. Compliance strategies
 - I. Sources of assistance and information
6. Approximately 14 % of course
Asbestos
- A. Introduction and history
 - B. Regulatory requirements
 - C. Uses of asbestos
 - D. Legal issues/insurance
 - E. Notification and documentation requirements
 - F. Inspection/assessment/sampling
 - G. Regulatory inspection and enforcement considerations
 - H. Compliance strategies
 - I. Sources of assistance and information

7. Approximately 14 % of course .
 Air Toxics
 A. Introduction and history
 B. Requirements of federal and state air pollution standards
 - Federal Clean Air Act
 - California Clean Air Act
 - Air Toxics statutes and regulations
 - State implementation plans
 C. Local air pollution control authorities
 D. Identification of toxic air pollutants
 E. The role of planning and modeling
 F. New source review and permitting considerations
 G. Regulatory inspection and enforcement considerations
 H. Compliance strategies
 I. Sources of assistance and information
9. Approximately % of course: Supplemental

NOTE: For Specific Details, see Instructor's Syllabus.

Method of evaluation to determine if objectives have been met by students:
 (Check all that apply)

Exams:

Essay	<input checked="" type="checkbox"/>	Class Activity	<input type="checkbox"/>	Written Assignments	<input checked="" type="checkbox"/>
Problem Solving Exercise	<input checked="" type="checkbox"/>	Skill Demonstration	<input type="checkbox"/>	Lab Activity	<input checked="" type="checkbox"/>
Objective Test	<input checked="" type="checkbox"/>	Oral Assignments	<input checked="" type="checkbox"/>	Quizzes	<input checked="" type="checkbox"/>

Other

Instructional Methodology: (Check all that apply)

Lecture	<input checked="" type="checkbox"/>	Demonstration	<input checked="" type="checkbox"/>	Discussion	<input checked="" type="checkbox"/>
Audiovisual	<input checked="" type="checkbox"/>	Individual Assistance	<input type="checkbox"/>	Group Activity	<input type="checkbox"/>
Computer Assisted Instruction	<input checked="" type="checkbox"/>				

Requires a minimum of three (3) hours of work per unit, including class time

Required and Major Optional Reading(s), Including Textbook(s) and Software: (Author-last name, first name. Title. Location: Publisher, Year)

Dufour, J. T. Hazardous Materials Handbook. California Chamber of Commerce, Latest Edition.